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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/502,098	07/22/2004	Masaaki Takido	P69976US0	4006

136 7590 05/31/2007

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EXAMINER	
AL HASHIMI, SARAH	
ART UNIT	**PAPER NUMBER**
2853	
MAIL DATE	**DELIVERY MODE**
05/31/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/502,098	TAKIDO ET AL.	
	Examiner	Art Unit	
	Sarah Al-Hashimi	2853	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *03 April 2007*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1 and 2* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1 and 2* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 04/03/2007 has been entered.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

3. **Claims 1,2** are rejected under 35 U.S.C. 103(a) as being unpatentable over Bäbler (5,075,195) in view of Harrison (6,852,948).

Bäbler teaches:

Claims 1: selecting a material of polytetrafluoroethylene (PTFE) as a substrate of an object to be marked (col 2, line 18 and 29 "the plastics material may comprise... polytetrafluoroethylene), interlaced fibers being contained in the PTFE as a filler (col 4 lines 44-9 "further modifiers may be added to the organic plastics material, for example fillers such as ...glass fibres"); irradiating a laser beam onto said marking position on said object to be marked to loosen the interlaced fibers adjacent to an irradiated surface

of the PTFE and to fluff the irradiated surface of the PTFE (according to the specification, fluffing constitutes altering the surface due to irradiation and is taught in the reference in col 7 lines 28-31 "laser irradiation at the areas of impact on the surface of the material to be marked induces a change in reflectance with a variable contrast"; a change in reflectance is a form of alteration to the irradiated surface); whereby the irradiated surface of the PTFE exhibits a color tone different from that of a non-irradiated surface of the PTFE to form a marking with a white-based color (col 3 line27 "add colorant..to the plastics object" and line 35 "additional colorants are inorganic" and line 38 "inorganic pigments are white pigments" and col 7 lines 39-41;"if an additional colorant is used, the effect marking appears, when viewed from the top and in perspective, often in the residual shade of the colorant employed" indicates that a color tone different from that of a non- irradiated surface of the PTFE to form a marking which is white when an inorganic pigment is used).

Claim 2: polytetrafluoroethylene (PTFE) as a substrate of an object to be marked (col 2, line 18 and 29 "the plastics material may comprise... polytetrafluoroethylene), interlaced fibers being contained in the PTFE as a filler (col 4 lines 44-9 "further modifiers may be added to the organic plastics material, for example fillers such as ...glass fibres"); a surface of the PTFE being fluffed at said marking position of the irradiated object to be marked by loosening the interlaced fibers adjacent to the surface of the PTFE (according to the specification, fluffing constitutes altering the surface due to irradiation and is taught in the reference in col 7 lines 28-31 "laser irradiation at the areas of impact on the surface of the material to be marked induces a change in reflectance with a

variable contrast"; a change in reflectance is a form of alteration to the irradiated surface); and whereby the irradiated surface of the PTFE exhibits a color tone different from that of a non-irradiated surface of the PTFE to form a marking with a white-based color (col 3 line27 "add colorant..to the plastics object" and line 35 "additional colorants are inorganic" and line 38 "inorganic pigments are white pigments" and col 7 lines 39-41;"if an additional colorant is used, the effect marking appears, when viewed from the top and in perspective, often in the residual shade of the colorant employed" indicates that a color tone different from that of a non- irradiated surface of the PTFE to form a marking which is white when an inorganic pigment is used).

Bäbler does not teach:

Claims 1: setting a marking speed of 300 to 400 mm/s and a laser beam power of 2.4 to 7.2 W in an irradiating condition of a laser beam.

Harrison teaches:

Claim 1: setting a marking speed of 300 to 400 mm/s and a laser beam power of 2.4 to 7.2W in an irradiating condition of a laser beam (claim 24 "laser beam having an energy level ranging between 1 and 30 watts, ... and a marking speed along the substrate ranging between 25 and 1000 mm/sec").

Therefore it would have been to a person of ordinary skill in the art at the time the invention was made to modify Bäbler's method for applying a marking to an object and product marked to incorporate Harrison's setting a marking speed of 300 to 400 mm/s and a laser beam power of 2.4 to 7.2W in an irradiating condition of a laser beam to have the energy be absorbed most efficiently by the surface irradiated and making it

possible for the laser beam to strike the marking material in the most efficient manner possible thereby resulting in a quality method and product (from col 21 and 22 of Harrison).

Response to Arguments

4. Applicant's arguments filed 04/03/2007 have been fully considered but they are not persuasive.

Applicant has argued that claim 1 contains molybdenum disulfide, and it undergoes alterations due to the laser beams not the PTFE. Applicant has not claimed an object strictly made of PTFE. The PTFE object still undergoes an alteration, therefore rejection stands.

With regards to claim 2, applicant objects to the combining of Harrison with Babler because the object marked does not contain PTFE. Both Harrison and Babler are from the same area of art and therefore the combination is completely appropriate to anyone of ordinary skill in the art.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sarah Al-Hashimi whose telephone number is 571 272 7159. The examiner can normally be reached on M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stephen Meier can be reached on 571 272 2149. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

SA

STEPHEN MEIER
SUPERVISORY PATENT EXAMINER